

# CITY OF WEST LAFAYETTE

## W E T   W E A T H E R   P R O G R A M

### “The Island” Green Infrastructure Improvements

The Island is an urban residential area within the West Lafayette city limits that is surrounded by Purdue University. Bordered by West Stadium Avenue, West State Street, North Russell Street and North University Street, the Island consists of individual and multi-family residences, apartments, and fraternity and sorority houses. The City of West Lafayette is considering furthering Purdue University’s green infrastructure initiative in this area because of its close proximity to the university.

Green infrastructure is the use of natural plants such as trees and shrubs in constructed landscapes and open spaces to improve stormwater quality and environmental sustainability. Because stormwater absorbs naturally into the soil, The Island is ideal to incorporate natural filtration practices.



### City to Expand University’s Green Initiative

The City of West Lafayette is considering implementing sustainable practices such as rain gardens and rain barrels. Rain gardens are a natural option to help manage stormwater. By absorbing stormwater runoff, rain gardens act as a natural filter helping to remove pollutants such as oil from cars, trash and lawn chemicals before it flows into local waterways. Rain gardens are comprised of a variety of native plants that are well adapted to the Indiana climate. Wildflowers, ferns, grasses, trees and shrubs all can thrive in rain gardens. They provide localized runoff control and add to the aesthetic value of the neighborhood.

Rain barrels collect rainwater and store it for later beneficial use. This water can be used for watering gardens and washing cars. Rain barrels reduce the amount of stormwater entering the sewer. In the combined sewer area of the city, rain barrels would free up capacity in the sewer, which will reduce raw sewage overflows into the Wabash River. These devices also help to conserve water in the area.

### Rain Gardens Naturally Filter Pollutants

#### Highlights

**Project:** Rain garden and rain barrel installation

**Estimated Project Cost:** \$2,523,000

**Status:** Planning

**Project Benefits:**

- Improved water quality in the Wabash River
- Conservation and reuse of stormwater
- Improved stormwater drainage
- Compliance with state and federal regulations
- Improved aesthetics of neighborhood

Approximately 88 homes will benefit from the rain garden and rain barrel improvements.

The Island Green Infrastructure Improvements project is part of the West Lafayette’s capital improvement program to improve the water quality of the Wabash River and other local streams and to address poor drainage conditions. The projects will reduce chronic flooding and satisfy the requirements of the U.S. Environmental Protection Agency and the Indiana Department of Environmental Management.

